

	Hits	Search Text	DBs	Time Stamp
1	2179	fibroblast and 3T3	USPAT	2001/10/18 08:48
2	1250	(fibroblast and 3T3) and (kill\$ or cytotoxic or apoptosis or death)	USPAT	2001/10/18 08:49
3	1250	(fibroblast and 3T3) and (kill\$ or cytotoxic or apoptosis or death)	USPAT	2001/10/18 08:49
4	220	fibroblast with (kill\$ or cytotoxic or apoptosis or death)	USPAT	2001/10/21 13:04
5	131	(fibroblast with (kill\$ or cytotoxic or apoptosis or death)) and (freez\$ or dry\$ or \$radiat\$)	USPAT	2001/10/18 09:00
6	52	((fibroblast with (kill\$ or cytotoxic or apoptosis or death)) and (freez\$ or dry\$ or \$radiat\$)) and (extracellular matrix and adhesion)	USPAT	2001/10/21 12:39
7	13	((fibroblast with (kill\$ or cytotoxic or apoptosis or death)) and (freez\$ or dry\$ or \$radiat\$)) and (matrix and adhesion)	USPAT	2001/10/21 12:38
8	1092	matrix with cell with (growth or proliferation)	USPAT	2002/10/16 13:38
9	101	(matrix with cell with (growth or proliferation)) and ((fibroblast and 3T3) and (kill\$ or cytotoxic or apoptosis or death))	USPAT	2001/10/18 09:09
10	450	fibroblast with (matrix or scaffold)	USPAT	2001/10/18 09:09
11	168	(fibroblast with (matrix or scaffold)) and (matrix with cell with (growth or proliferation))	USPAT	2001/10/21 13:06
12	104	((fibroblast with (matrix or scaffold)) and (matrix with cell with (growth or proliferation))) and (cytotoxic or death or kill\$ or apoptosis)	USPAT	2002/10/11 14:28

	Hits	Search Text	DBs	Time Stamp
13	41	((fibroblast with (matrix or scaffold)) and (matrix with cell with (growth or proliferation))) and (cytotoxic or death or kill\$ or apoptosis)) and ((matrix or scaffold) and adhesion and proliferation)	USPAT	2001/10/18 09:11
14	2	(fibroblast with (kill\$ or cytotoxic or apoptosis or death)) and \$radiat\$ and (extracellular adj1 matrix and adhesion)	USPAT	2001/10/21 12:44
15	0	((fibroblast with (kill\$ or cytotoxic or apoptosis or death)) and \$radiat\$ and (extracellular adj1 matrix and adhesion)) and 3t3	USPAT	2001/10/21 12:44
16	220	fibroblast with (kill\$ or cytotoxic or apoptosis or death)	USPAT	2001/10/21 12:44
17	51	(fibroblast with (kill\$ or cytotoxic or apoptosis or death)) and 3t3	USPAT	2001/10/21 12:45
18	14	culture with keratinocyte with fibroblast	USPAT	2002/04/05 09:16
19	53	fibroblast with culture with (matrix or medium) with cell with (growth or proliferation)	USPAT	2002/04/05 09:49
20	1152	(epithelial or hepatic) with culture	USPAT	2002/04/05 09:21
21	3	(fibroblast with culture with matrix) and ((epithelial or hepatic) with culture)	USPAT	2002/04/05 09:21
22	19	fibroblast with culture with matrix	USPAT	2002/04/05 09:29
23	0	method with make with matrix with fibroblast	USPAT	2002/04/05 09:50
24	0	method with make with matrix with collagen	USPAT	2002/04/05 09:53
25	2910	collagen with matrix	USPAT	2002/04/05 09:53
26	1190	culture with skin	USPAT	2002/04/05 09:53
27	182	(collagen with matrix) and (culture with skin)	USPAT	2002/04/05 09:53
28	51	collagen with matrix with (prepare or make)	USPAT	2002/04/05 09:54

	Hits	Search Text	DBs	Time Stamp
29	694	((cell with (matrix or scaffold)) and (matrix with cell with (growth or proliferation))) and (cytotoxic or death or kill\$ or apoptosis)	USPAT	2002/10/11 14:34
30	36	((cell with (matrix or scaffold)) and (matrix with cell with (growth or proliferation))) and (cytotoxic or death or kill\$ or apoptosis).ab.	USPAT	2002/10/11 14:31
31	1384	cell with (matrix or scaffold or lattice).ab.	USPAT	2002/10/11 14:32
32	85	(cell with (matrix or scaffold or lattice).ab.) and growth.ab.	USPAT	2002/10/11 14:32
33	1693	cell with (secret\$3 or produc\$4) with (matrix or scaffold)	USPAT	2002/10/11 14:36
34	1816	cell with (secret\$3 or produc\$4) with (matrix or scaffold or lattice)	USPAT	2002/10/11 14:47
35	340	(cell with (secret\$3 or produc\$4) with (matrix or scaffold or lattice)) and ((kill\$ or destroy\$ or inhibit adj growth) with cell\$)	USPAT	2002/10/11 14:53
36	266	(cell with (secret\$3 or produc\$4) with (matrix or scaffold or lattice)) and ((kill\$ or destroy\$ or inhibit adj growth) with cells)	USPAT	2002/10/11 14:53
37	115	cell with secrete with (matrix scaffold lattice)	USPAT	2002/10/16 09:51
38	1	"4485096".PN.	USPAT	2002/10/16 09:46
39	23	((("4485096") or ("4485097") or ("4501815") or ("4505266") or ("4642292") or ("4645669") or ("4661111") or ("4776853") or ("4795459") or ("4801299") or ("4837285") or ("4902508") or ("4917890") or ("4935000") or ("4950483") or ("4956178") or ("4969912") or ("4981841") or ("5024841") or ("5043426") or ("5110604") or ("5192312") or ("5262403"))).PN.	USPAT	2002/10/16 09:50

	Hits	Search Text	DBs	Time Stamp
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41	0	((("4485096") or ("4485097") or ("4501815") or ("4505266") or ("4642292") or ("4645669") or ("4661111") or ("4776853") or ("4795459") or ("4801299") or ("4837285") or ("4902508") or ("4917890") or ("4935000") or ("4950483") or ("4956178") or ("4969912") or ("4981841") or ("5024841") or ("5043426") or ("5110604") or ("5192312") or ("5262403"))).PN.) and (secrete with (matrix scaffold lattice))	USPAT	2002/10/16 09:52
42	149	cell with secrete with (matrix scaffold lattice)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/10/16 09:52
43	19	((("4485096") or ("4485097") or ("4501815") or ("4505266") or ("4642292") or ("4645669") or ("4661111") or ("4776853") or ("4795459") or ("4801299") or ("4837285") or ("4902508") or ("4917890") or ("4935000") or ("4950483") or ("4956178") or ("4969912") or ("4981841") or ("5024841") or ("5043426") or ("5110604") or ("5192312") or ("5262403"))).PN.) and (matrix scaffold lattice)	USPAT	2002/10/16 09:54
44	1736	(matrix scaffold lattice) with cell with (growth or culture or proliferation)	USPAT	2002/10/16 09:55
45	898	((matrix scaffold lattice) with cell with (growth or culture or proliferation)) and fibroblast	USPAT	2002/10/16 09:56

	Hits	Search Text	DBs	Time Stamp
46	7	((matrix scaffold lattice) with cell with (growth or culture or proliferation)) and (fibroblast with (kill\$4 or destroy or lethal\$2))	USPAT	2002/10/16 09:56
47	9	fibroblast with (matrix or lattice or scaffold) with keratinocyte	USPAT	2002/10/16 12:26
48	556	fibroblast with (matrix or lattice or scaffold)	USPAT	2002/10/16 12:26
49	16	(fibroblast with (matrix or lattice or scaffold)) same keratinocyte	USPAT	2002/10/16 12:27
50	8	hepatic adj1 cells with keratinocytes	USPAT	2002/10/16 13:37
51	1309	matrix with cell with (growth or proliferation)	USPAT	2002/10/16 13:38
52	1	matrix with cell with (growth or proliferation) with (hepatic or liver) adj1 cells	USPAT	2002/10/16 13:38

US-PAT-NO: 5556645
DOCUMENT-IDENTIFIER: US 5556645 A
TITLE: Methods of enhancing wound healing and tissue repair
DATE-ISSUED: September 17, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP	CODE	COUNTRY
Bockman; Richard	New York	NY	10021		N/A
Guidon; Peter	Union	NJ	07083		N/A

APPL-NO: 08/ 430142
DATE FILED: April 26, 1995

PARENT-CASE:

This application is a continuation of application Ser. No. 07/910,118, filed on Sep. 14, 1992, now abandoned; which is a continuation in part of Ser. No. 07/464,361, filed as PCT/US90/06606, Nov. 13, 1990 published as WO91/10437, Jul. 25, 1991 now abandoned.

INT-CL: [06] A61K033/24,A61K031/28
US-CL-ISSUED: 424/650, 514/492
US-CL-CURRENT: 424/650, 514/492
FIELD-OF-SEARCH: 424/650; 514/492

REF-CITED:**U.S. PATENT DOCUMENTS**

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<u>4529593</u>	July 1985	Warrell, Jr. et al.	424/650 N/AN/A
<u>4686104</u>	August 1987	Bockman et al.	424/650 N/AN/A
<u>4704277</u>	November 1987	Bockman et al.	424/650 N/AN/A
<u>4882166</u>	November 1989	Graham et al.	424/462 N/AN/A

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
62230648A	June 1987	JP	

OTHER PUBLICATIONS Bergkvist et al., "The Risk of Breast Cancer after Estrogen-Progestin Replacement", New England Journal of

Medicine, 321:293-297 (1989).

Centrella et al., "Transforming Growth Factor .beta. is a Bifunctional Regulator of Eplication and Collagen Synthesis in Osteoblast-enriched Cell Cultures from Fetal Rat Bone", The Journal of Biological Chemistry, 262:2869-2874 (1987).

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Espression and Other Phenotype-Related mRNAs in Osteoblastic Rat Osteosarcoma Cells", Journal of Cellular Physiology, 133:426-437 (1987).

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ART-UNIT: 125

PRIMARY-EXAMINER: Weddington; Kevin E.

ABSTRACT:

Skin, connective and support tissue repair is enhanced and augmented by administering pharmaceutically acceptable gallium-containing compounds in amounts sufficient to provide therapeutic levels of elemental gallium. Gallium-containing compounds mimic the effects of endogenous growth factors to induce cells within these tissues to produce new matrix by increasing the formation of critical structural matrix proteins responsible for skin, support and connective tissue repair, maintenance and augmentation. Gallium-containing compounds are suitable for a variety of applications in wound healing, including dermatologic and cosmetic skin repair, bone fracture repair and successful bonding of implanted tissue grafts and connective and support tissue prostheses. The unique ability of the gallium-containing compounds to increase new matrix component formation and favorably alter the proliferation of specific cell types needed for tissue repair is separate and distinct from gallium's inhibitory activity on matrix-resorbing cells such as bone-resorbing osteoclasts.

10 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Detailed Description Text - DETX:

Increasing keratinocyte proliferation means that wound healing is accelerated. The protective barrier over the skin wound is thus

established earlier allowing subsequent healing to proceed in a protected and sterile environment. Wound infection due to inadequate sealing of the wound is probably one of the major impediments to wound healing. Coupled with known enhancement of fibroblast production of key matrix components, gallium-containing compound treatment of skin wounds greatly facilitates and accelerates wound healing.

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41	0	((("4485096") or ("4485097") or ("4501815") or ("4505266") or ("4642292") or ("4645669") or ("4661111") or ("4776853") or ("4795459") or ("4801299") or ("4837285") or ("4902508") or ("4917890") or ("4935000") or ("4950483") or ("4956178") or ("4969912") or ("4981841") or ("5024841") or ("5043426") or ("5110604") or ("5192312") or ("5262403"))).PN.) and (secrete with (matrix scaffold lattice))	USPAT	2002/10/16 09:52
42	149	cell with secrete with (matrix scaffold lattice)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/10/16 09:52
43	19	((("4485096") or ("4485097") or ("4501815") or ("4505266") or ("4642292") or ("4645669") or ("4661111") or ("4776853") or ("4795459") or ("4801299") or ("4837285") or ("4902508") or ("4917890") or ("4935000") or ("4950483") or ("4956178") or ("4969912") or ("4981841") or ("5024841") or ("5043426") or ("5110604") or ("5192312") or ("5262403"))).PN.) and (matrix scaffold lattice)	USPAT	2002/10/16 09:54
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48	556	fibroblast with (matrix or lattice or scaffold)	USPAT	2002/10/16 12:26
49	16	12 same keratinocyte	USPAT	2002/10/16 12:27